

1. On a small Collection of Mammals, Reptiles, and Batrachians from Barbary. By JOHN ANDERSON, M.D., LL.D., F.R.S.

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(Plate I.)

The Mammals, Reptiles, and Batrachians enumerated in the following notes were obtained either by myself in Algeria and Tunisia, or by my collector at Duirat, in the latter region, on the confines of Tripoli. But besides these, several species of Reptiles from the Sahara, purchased from a collector at Biskra¹, are also included in the list. The specimens collected by me were acquired between December and the beginning of May, and those captured by my collector between the middle of May and the end of June.²

The weather experienced in Algeria, in the winter and spring of 1889-90, was very unfavourable to collecting natural history specimens, and more especially reptiles. In Algiers itself, from the end of November until the 7th February, there was a succession of rainless intervals followed by protracted periods of wet weather accompanied with high winds, and so cold that fires were indispensable while the wet weather lasted. During these storms what fell as rain in the lower altitudes of the Tell, came down as snow on the Atlas and the high plateaux, a cold wind blowing from off their heights. On the 10th February I encountered snow a *metre* in depth on Mount Beni Salah (5379 ft.) above Blidah, at an elevation of about 1200 to 1500 ft. below the summit; and M. Lataste records that, on the 22nd April 1881, the rain and hail that fell at that elevation on this mountain prevented him from passing beyond the farm called *La Glacière*, where snow is stored for use in summer at Algiers. This bad weather was not confined to the neighbourhood of Algiers, because, while there, there were constant reports coming in of heavy snow in Kabylia, at Setif, Constantine, and Batna, and indeed over the high plateaux generally, these storms occasionally making themselves felt as far south as Biskra, whence it was reported

¹ The localities in which the specimens had been captured were in every instance carefully noted on the bottles.

² The following is a list of the localities visited by me, with the altitudes of some of them, and the date when I was at each:—Algiers, Nov.-7 Feb.; Blidah, on the southern slope of the plain of the Metidji, 7th-12th Feb.; Hammam R'irha, 1800 ft., 12th-27th Feb.; Oran, 27th Feb.-6th March; Tlemcen, 2500 ft., 6th-11th March; Oran, 11th-13th March; Milianah, 2400 ft., 13th-19th March; Algiers, 19th-31st March; Tizi Ouzou, 31st March; Fort National, Kabylia, 3153 ft., 1st April; Tizi Ouzou, 1st-2nd April; Bordj Bonira, 2nd April; Bougie, 3rd-5th April; Kharata, Chabet el Akhira, 1280 ft., 5th-8th April; Setif, 3573 ft., 8th-10th April; Constantine, 2093 ft., 10th-15th April; Biskra, 360 ft., 15th-22nd April; Constantine, 22nd-23rd April; Hammam Meskoutine, 23rd-28th April; Souk el Arba, plain of the Medjeida, Tunisia, 29th April; Tunis, 30th April-12th May.

that a heavy fall of rain had caused the collapse of some of the mud-houses of that oasis. While at Tlemgen, in the beginning of March, after experiencing two delightful days of bright sunshine, during which lizards began to show themselves, we were driven from it by a storm of rain and sleet, accompanied by a biting wind from the south-west, the direction from which these storms generally came, that lasted for two days. About this period, the railways that run southwards from Oran to the Sahara were blocked with snow. At Oran the weather was equally unsettled, clear intervals of sunshine alternating with days of heavy rain. At Milianah, on the morning of the 18th March, we awoke to find the tops of the houses and the ground covered with snow, and, during a previous storm, towards the end of February, snow had fallen as low as Hammam R'irha. At Algiers we were delayed for thirteen days (19th March to 31st), waiting until the snow had disappeared from the mountain in Kabylia on which Fort National stands. At Kharata, at the head of the gorge Chabet el Akhira, we were storm-stayed for three days, as torrential rains, lasting for two days, had carried away parts of the road behind and in front of us. When we had arrived on the treeless plateau on which Setif stands, the frost was so intense on the morning (10th April) on which we left it, that every pool was frozen. The evening of the day following our arrival at Biskra, the wind rose with violence from the north accompanied by heavy rain which continued through the night and part of the next day. The Oued Biskra was so flooded by this storm from the Aures mountains, that the route to Sidi Okha which lies across it was closed for a day. My experience of an Algerian winter I was told was quite exceptional; but, since my return to this country, I have studied with interest the reports of the weather experienced in Algeria last winter, and I find that it has been even more exceptional than the previous winter. Snow fell in Algiers itself, and so heavily in Tunisia that native houses broke down under its weight, while some deaths from cold were recorded. In the west also it was very severe, as some anxiety was felt, during one of the storms, for an outlying village near Tlemgen which had become completely isolated, by reason of the snow that surrounded it. In connection with these observations on the winter climate of Algeria, I observe M. Lataste mentions the spring of 1881 was so little advanced by the middle of May, when he was at Bougie, that he was compelled to turn southwards. It was only when we had travelled as far west as Hammam Meskoutine, removed somewhat from the direct influence of the storms that come up from the Atlantic, that we began to experience genial weather and bright sunshine, under the influence of which snakes and lizards began to shake off the torpidity of winter, and by the time we had reached Tunis, 30th April, the heat in the sun had become so great that I abandoned the intention I had formed of going to Duirat, and sent my collector there instead.

I have given these details regarding the weather encountered in Algeria in 1889-90 because the character of the winter climate does not appear generally known, and as they serve to explain, to a

great degree, why the collection of reptiles made by me is so comparatively meagre.

M. Lataste, the most recent and successful investigator of the Vertebrate fauna of Barbary, has recorded his observations on the Mammalia inhabiting that region in two works¹. He has been able, by his collections and extensive researches in the country and by the labours of other naturalists, to bring up the number of Mammalian species inhabiting Barbary to 84.

Among the eleven species of small Mammalia found by me the only one calling for special remark is *Plecotus auritus*, obtained by my collector in considerable numbers at Duiat. The interest attached to these specimens is that, while the species is an addition to the fauna of Tunisia, it is only the second time that it has been reported from Barbary. M. Loche had observed a specimen in the flesh, at Blidah, in the hands of a child who had caught it; but M. Lataste was of the opinion that the species was one of eight included by M. Loche in his list of Mammals of Algeria, all of which would probably be ultimately erased from the list. This however, is included by M. Lataste in his Catalogue along with the other seven.

Another valuable result of M. Lataste's labours was read before this Society on the 18th November last. I refer to Mr. Boulenger's "Catalogue of the Reptiles and Batrachia of Barbary, based chiefly upon the notes and collections made by M. Lataste in 1880-84." Long before his Catalogue was finally printed off, Mr. Boulenger very kindly gave me the use of a set of proofs to assist me in naming my specimens, and by their aid, and by means of the excellent keys and concise descriptions embodied in the Catalogue, the identification of the specimens was easily accomplished, even in so difficult a genus as *Acanthodactylus*.

Moreover, as the specimens, after they had been referred to their respective species, were compared with the representatives of the species in the British Museum, I have every confidence that each has been correctly named.

Mr. Boulenger's Catalogue enumerates 64 species of Reptiles and 10 species of Batrachians, whereas my small collection contains only 33 Reptiles and six ecaudate Batrachians, none of the caudate forms having been obtained. Mr. Boulenger has given a most instructive list illustrating in tabular form the distribution of the Reptilia and Batrachia of Barbary; and the only addition these specimens make to it is the extension of the range of *Lacerta ocellata*, var. *tangitana*, to the Tell region of Algeria, in the Province of Oran.

At Duiat, in Tunisia, a locality where apparently forms distinctive of the Tell and of the fauna of the Sahara meet, and which in position seems to bear much the same relation to the Tunisian desert that Biskra has to the Algerian Sahara, my collector obtained one

¹ "Étude de la Faune des Vertébrés de Barbarie: Catalogue Provisoire des Mammifères Apélagiques Sauvages," Actes de la Soc. Linnéenne de Bordeaux, t. xxxix. pp. 129-289. And as a separate work, 1885. Catalogue Critique des Mammifères Apélagiques Sauvages de la Tunisie, 1887.

well-marked new species of the genus *Chalcides*, of which I give a description and three figures, accompanied, for the sake of comparison, by two views of the head of its nearest ally, *C. seipoides*, Audouin.

At the same place my collector also found a Viper distinctly referable to *V. lebetina*, but, at the same time, differing so much from the typical form, in some of the details of its structure, that I have had no other course left me but to describe it as a variety.

MAMMALIA.

Order CHIROPTERA.

Family I. RHINOLOPHIDÆ.

Genus RHINOLOPHUS, Geoffroy.

1. RHINOLOPHUS EURYALE, Blasius; Lataste, Etude de la Faune des Vertébrés de Barbarie, 1885, p. 65.

1 ♂, cave at Hammam Meskoutine, Province of Constantine.

Family II. VESPERTILIONIDÆ.

Genus PLECOTUS, Geoffroy.

2. PLECOTUS AURITUS, Linnæus; Lataste, Etude de la Faune des Vertébrés de Barbarie, 1885, p. 66.

2 ♂ & 14 ♀, Duiat, Tunisia.

Beyond M. Loche's statement¹ that he saw a specimen of this Bat in the hands of a child at Blidah, I am not aware of any other notice of its occurrence in Algeria, and this is the first time it has been reported from Tunisia. The foregoing specimens, instead of being light brown, are pale ashy on the upper surface, the light colour generally distinctive of this Bat in desert regions.

Genus VESPERUGO, Keys. & Blas.

3. VESPERUGO KUHLI, Natterer; Lataste, Etude de la Faune des Vertébrés de Barbarie, 1885, p. 70; id. Cat. Crit. des Mammif. Apélagiques Sauvages de la Tunisie, 1887, p. 2.

1 ♂ & 1 ♀², Duiat, Tunisia.

¹ Cat. des Mammif. et des Oiseaux observés en Algérie, 1858, sp. 43.

² The wing and interfemoral membranes of one of these Bats are torn and shrivelled up in places along the margins to such an extent that the flight of the animal must have been materially affected by it. Here and there over the surfaces of the membranes, and elsewhere on the body, there are dense colonies of a minute white *Acarus*, and it seems probable that the irritation produced by them had set up inflammation resulting in the partial destruction of the membranes, which also, when held against the light, were seen to be covered with small black spots, doubtless old inflamed areas due to the same cause. Mr. A. Michael kindly undertook to determine the nature of these *Acari*. The following are his remarks:—

"The *Acari* submitted to me belong to two species only, and are all immature.

"The first is a single specimen of the nymph of one of the *Ixodidæ*, and

This widely distributed Bat was recorded from the Tunisian Chotts by M. Lataste in 1885, and again, in 1885, from El Hammam de Cabes, at the eastern extremity of these salt-water lakes of Tunisia.

Genus MINIOPTERUS, Bonaparte.

4. *MINIOPTERUS SCHREIBERSI*, Natterer; Lataste, Etude de la Faune des Vertébrés de Barbarie, 1885, p. 75.

2 ♂ & 2 ♀, cave at Hammam Meskoutine, Province of Constantine.

The most easterly point in the distribution of this Bat recorded by M. Lataste was Cape Okas, near Bougie. This new locality brings it close to Tunisia, in which province, however, it has not yet been observed.

Order INSECTIVORA.

Family I. MACROSCOLIDIDÆ.

Genus MACROSCOLIDES.

1. *MACROSCOLIDES ROZETI*, Duvernoy; Lataste, Etude de la Faune des Vertébrés de Barbarie, 1885, p. 77; id. Cat. Crit. des Mammif. Apélagiques Sauvages, 1887, p. 4.

2 ♂ & 2 ♀, Duirat, Tunisia; 1 ♀, hills behind Biskra.

This species has been found at Mount Santa Cruz, Oran (in the Tell), whence also probably came the specimen from which Duvernoy described the species. It likewise inhabits the high plateaux, and has been recorded from (north to south) Aïn Oussera, about 3000 ft. above the sea, Djelfa, 3792 ft., Aïn el Ibel, about 3700 ft., and also from the slopes tending to the Sahara, such as Laghouat, 2437 ft., and Bou Sâada, 1900 ft. The specimen recorded by me from Biskra, 360 ft. above the sea-level, was not obtained at this elevation, but from the hills behind, at what height I cannot say. M. Lataste

belongs to the genus *Hyalomma* (Koch). The species seems to be either the *Ixodes flavipes* of Koch or the *I. vespertilionis* of the same author; it is not possible in the present state of our knowledge to identify it with certainty from immature specimens, but it is probable that the two species are not really distinct; both have been recorded as bat-parasites, the former by Kolenati, the latter by Koch. According to modern classification this Acarid would belong to the genus *Hyalomma*, not *Ixodes*.

"The other Acarid, of which there are numerous examples, was found by Dr. Anderson upon the same Bat and upon *Plecotus auritus*; it is one of the creatures described by Kolenati as forming the genus *Peplonyssus*; the species is probably his *P. cruciplica*. These *Peplonyssi* are all bat-parasites; but, although I am not sure that the fact has been publicly recorded, I think there can be no doubt that all the species of the genus are larval forms of Ixodidæ, the adults of which we may or may not be acquainted with, but which cannot at present be identified with the larvæ."

has recorded it from Batna, 3350 ft., on the high plateaux immediately to the north of Biskra, and he has mentioned specimens from the region of the Tunisian Chotts, Feriana and Djebel Bou-Hedma, Tunisia, but none so far from the east as Duirat.

The female from Biskra I had alive in my possession from the 17th April until the 22nd May. I brought it alive to Switzerland, but, after it had been eight days in Europe, it died, possibly from eating food unsuited to it. In Algeria, but more especially in Tunis, I experienced no difficulty in obtaining house-flies wherewith to feed it, and on which it thrived, but, on my arrival in Europe, these insects were so scarce that I had first to offer it the larvæ on which bird-fanciers feed small insectivorous birds. These it ate for a day or two, but, as it afterwards refused to touch them, I had next to try it with small cockroaches. These, however, did not appear to agree with it, and in two days more it was dead.

It was very expert in catching flies, and as it never attempted to jump off any great height, I used to place it on a table, covered with a white cloth, and to scatter maimed flies over the table. When it once caught sight of a fly it made a rapid rush at it, the mobile proboscis touched the fly, and it disappeared, the Shrew seldom allowing one to escape. The tongue is remarkably long, exceeding the length of the snout, on the under surface of which there is a well-marked groove along which possibly the tongue is projected, assisting in the seizure of the insect prey. In its natural haunts, the proboscis is probably introduced into crevices where insects lurk.

It was so tame that it was generally placed on the breakfast table, on which it ran perfectly at home, occasionally picking up minute hard crumbs from the outsides of "*croissants*" or fragments of biscuits. It used also to lap milk freely from a spoon, returning every now and again to do so, and, if it had had its own way, it would have gorged itself with butter, but with disastrous effects, as a small quantity acted on it as a laxative.

Its great delight while on the table was to get under a covert of some kind, and to run from one shelter to another, now and again darting out suddenly when it saw a fly. It never attempted to bite, and it seemed to enjoy being held in the hands, the heat and cover afforded by them being grateful to it. In this position it would remain for a long time, making no effort to move.

Its sense of hearing was acute, more especially to sharp sounds, any shrill call at once startling it, whereas dull sounds it seemed to heed but little. With regard to its vision, I may mention that while it had a keen eye for small objects in motion, I could wave my arms in front of it, a few feet off, without scaring it.

Its movements were extremely rapid, and in ordinary progression it never jumped, but was projected forwards, so to speak, in short runs, ever and anon stopping abruptly to look about.

Measurements of *Macroscelides rozeti*.

	♂.	♂.	♀.	♀.	♀.
	millim.	millim.	millim.	millim.	millim.
Tip of snout to vent.....	104	94	108	105	95
Vent to tip of tail without hairs...	114	112	110	117	100
Tip of snout to upper incisors.....	14	13	13	14	14
Length of hind foot with claws ...	31	31	32	32	32
Height of ear	29	29	31	30	28
Breadth of ear	20	20	20	22	19

There were two fœtuses in the right horn of the uterus of one of these females, a similar number having been recorded by M. Lataste in an individual which he examined. In his specimen they were still very young on the 10th May, whereas in my specimen, captured in June, they were covered with hair and evidently mature. The weight of one of the fœtuses was 28 grains without the placenta.

Family II. SORICIDÆ.

Genus CROCIDURA, Wagler.

2. CROCIDURA ARANEA, Linnæus; Lataste, Etude de la Faune des Vertébrés de Barbarie, 1885, p. 82; id. Cat. Crit. des Mammif. Apélagiques Sauvages de la Tunisie, 1887, p. 6.

1 ♀, environs of Algiers.

Snout to vent 55 millim.; vent to tip of tail 35 millim.; hind foot and claws 13 millim.

Order RODENTIA.

Family I. MURIDÆ.

Subfamily Gerbillinæ.

Genus GERBILLUS, Desmarest.

1. GERBILLUS CAMPESTRIS, Levaillant; Lataste, Etude de la Faune des Vertébrés de Barbarie, 1885, p. 142; id. Cat. Crit. des Mammif. Apélagiques Sauvages de la Tunisie, 1887, p. 24.

1 ♂, Duiirat, Tunisia.

Measurements of *G. campestris*.

	♂. millim.
Tip of snout to vent.	90
Vent to tip of tail without hairs.	114
Height of ear	15
Length of hind foot with claws	27
Occiput to vent	32

This form in its four subarticular and two tarsal tubercles=
Dipodillus.

2. GERBILLUS SHAWI, Rozet.

Meriones shawi, Rozet ; Lataste, Etude de la Faune des Vertébrés de Barbarie, 1885, p. 114 ; id. Cat. Crit. des Mammif. Apélagiques Sauvages de la Tunisie, 1887, p. 27.

5 ♀ & 1 ♂, Duirot, Tunisia.

Measurements of *G. shawi*.

	♀.	♀.	♀.	♀.	♀.	♂.
	millim.	millim.	millim.	millim.	millim.	millim.
Tip of snout to vent.....	135	128	117	77	73	74
Vent to tip of tail without hairs	125	117	119	63	67	69
Height of ear	15	13	13	11	11	11
Length of hind foot and claws	33	33	33	26	26	27
Occiput to snout	41	39	38	30	29	30

The largest female was gravid (June), and had four foetuses, well advanced, in each horn of the uterus.

Subfamily *Murinae*.Genus *MUS*, Linnæus.

3. *MUS MUSCULUS*, Linnæus ; Lataste, Etude de la Faune des Vertébrés de Barbarie, 1885, p. 135 ; id. Cat. Crit. des Mammif. Apélagiques Sauvages de la Tunisie, 1887, p. 22.

1 ♀ juv., Biskra ; 2 ♂, Hammam Meskoutine, Province of Constantine ; and 1 ♂, Duirot, Tunisia.

Family II. OCTODONTIDÆ.

Genus *CTENODACTYLUS*, Gray.

4. *CTENODACTYLUS GUNDI*, Rothman ; Lataste, Etude de la Faune des Vertébrés de Barbarie, 1885, p. 152 ; id. Cat. Crit. des Mammif. de la Tunisie, 1887, p. 31.

2 ♀ & 1 ♂, Duirot, Tunisia.

This species is said to be common on the hills behind Biskra.

Family III. DIPODIDÆ.

Genus *DIPUS*, Gmelin.

5. *DIPUS HIRTIPES*, Lichtenstein ; Lataste, Etude de la Faune des Vertébrés de Barbarie, 1885, p. 150 ; id. Cat. Crit. des Mammif. &c. 1887, p. 30.

1 ♀, Biskra.

This female gave birth to two young ones while in my possession (27 April), but made no visible effort to rear them.

The animal burrowed in loose earth with great rapidity, completely disappearing in a remarkably short time, driving the earth backwards with its hind feet, and, as it accumulated behind them, turning and pushing it out of the burrow with its broad hairy snout.

REPTILIA.

Order CHELONIA.

Family I. TESTUDINIDÆ.

Genus TESTUDO, Linnæus.

1. TESTUDO IBERA, Pallas ; Boulenger, Trans. Zool. Soc. London, vol. xiii. pt. iii. 1891, p. 104.

5, neighbourhood of Algiers ; 2, Duiat, Tunisia.

Genus CLEMMYS, Wagler.

2. CLEMMYS LEPROSA, Schweigger ; Boulenger, *loc. cit.* p. 106.

3 ♀, Duiat, Tunisia.

I also obtained a specimen of this species at Biskra, but it escaped.

Order SQUAMATA.

Suborder I. LACERTILIA.

Family I. GECKONIDÆ.

Genus HEMIDACTYLUS, Gray.

1. HEMIDACTYLUS TURCICUS, Linnæus ; Boulenger, *loc. cit.* p. 115.

1 ♀, Hammam R'irha, Province of Algiers.

Genus TARENTOLA, Gray.

2. TARENTOLA MAURITANICA, Linnæus ; Boulenger, *loc. cit.* p. 115.

1, Biskra ; 3, walls of old tombs outside the Bab Alewa, Tunis ; 21, Duiat, Tunisia.

Among these specimens there are examples of the typical form and of the variety *deserti*. The specimen from Biskra is an example of the latter, but the Geckos from Tunis belong to the typical form, which also occurs at Duiat, along with the variety, the Saharian and Tell faunæ meeting at that locality.

Family II. AGAMIDÆ.

Genus AGAMA, Daudin.

3. AGAMA INERMIS, Reuss ; Boulenger, *loc. cit.* p. 117.

2, from between Biskra and Tuggurt ; 1 ♀, Tuggurt ; 2 ♂ & 4 ♀, Duiat, Tunisia.

The largest female measures from the snout to the vent 94 millim., and the tail 125 millim.

These specimens illustrate the unequal lepidosis of the back mentioned by Mr. Boulenger, as no two are alike in the distribution of the enlarged scales.

The Duirat specimens collected in the months of May and June are gravid.

Genus UROMASTIX, Merrem.

4. UROMASTIX ACANTHINURUS, Bell ; Boulenger, *loc. cit.* p. 119.
2, Biskra ; 2, Duirat.

Family III. VARANIDÆ.

Genus VARANUS, Merrem.

5. VARANUS GRISEUS, Daudin ; Boulenger, *loc. cit.* p. 121.

1 ♀, Duirat, Tunisia.

Mr. Boulenger gives the dimensions of this species as follows :—snout to vent 56 centim., tail 71 ; but this female, although it is 22 centimetres shorter in its body, is gravid, having 7 ova in the right, and 8 in the left ovary, the ova on the right side being pressed forwards almost as far as the axilla.

Family IV. AMPHISBÆNIDÆ.

Genus TROGONOPHIS, Kaup.

6. TROGONOPHIS WIEGMANNI, Kaup ; Boulenger, *loc. cit.* p. 122.
2, Hammam Meskoutine, Province of Constantine, under large stones on hill-sides.

Family V. LACERTIDÆ.

Genus LACERTA, Linnæus.

7. LACERTA OCELLATA, Daudin ; Boulenger, *loc. cit.* p. 123.

Var. PATER, Lataste, 1880 ; Boulenger, *loc. cit.* p. 123.

2 ♂, under hedges by the road-side, Tlemsen, Province of Oran ;
1 ♀, under a large stone, Hammam Meskoutine, Province of Constantine ; 2 ♂ & 2 ♀, Duirat, Tunisia.

M. Lataste was the first to point out that the large lizard of Algeria and Tunisia was a race or subspecies of *L. ocellata*, closely related to it, but having also some points of affinity with *L. viridis*. Mr. Boulenger adopts this view, with which I fully agree, and in his catalogue he clearly indicates wherein it differs from the European form.

In none of these specimens does the number of scales across the back exceed 80, nor are the femoral pores more than 16.

7a. var. TANGITANA, Boulenger, Catalogue of Lizards in the

Brit. Mus. 1887, vol. iii. p. 13, pl. iii. fig. 1; et *loc. cit.* p. 124.

1 young, Tlemgen, Province of Oran.

This variety was founded by Mr. Boulenger for the reception of some lizards from Tangier, very nearly allied to the previous variety, but differing from it and from *L. ocellata typica* in their much smaller dorsal scales, numbering from 77 to 100 across the middle of the body, and in their more numerous (17–21) femoral pores. On the other hand, in their smaller occipital and in the number (6–8) of the longitudinal rows of ventral scales, they manifest, as pointed out by Mr. Boulenger, marked affinities to the Spanish-Portuguese form of *L. viridis*, the var. *schreiberi*, Bedriaga, and so closely do they resemble it in these two respects that they are undistinguishable from it. Until the discovery of these specimens from Tangier, *L. ocellata* and *L. viridis* were unknown from Morocco. It is interesting therefore to find the Morocco variety occurring at Tlemgen, but not surprising, considering the proximity of this locality to Morocco. This specimen, however, presents one variation by which it can be distinguished from all the examples of var. *tangitana* in the British Museum, and that is, that the shields along the collar are much more numerous, being 22, whereas in vars. *pater* and *tangitana* there are only 10 or 11 shields. This is not at all likely to be an individual variation, and hence it is interesting to find the outlying members of the variety so modified.

The specimen in question is unfortunately young, as it measures only 47 millim. from the snout to the vent, but in all its other characters it resembles var. *tangitana*. The dorsal scales are very small, and number 87 across the middle of the body; there are 18 femoral pores, 8 longitudinal rows of scales on the belly, and the occipital shield is decidedly narrower than the interparietal, all distinctive features of *L. ocellata*, var. *tangitana*.

8. *LACERTA MURALIS*, Laurenti; Boulenger, *loc. cit.* p. 125.

3 ♂ & 3 ♀, Tlemgen, Province of Oran.

These lizards resemble the specimens of this species from Tangier described by Mr. Boulenger as having the scales very small, obtusely keeled and in 61 to 73 rows across the middle of the body, but in some of them they fall to 56. Their upper caudal scales are also strongly keeled as in specimens from Tangier. The femoral pores vary from 17 to 21, whereas in examples from the latter district they vary from 13 to 19, 17 being the usual number.

One of the above males is coloured exactly like the specimens from Tangier in the British Museum, but another and two females are less spotted with black, and the white spots on the tail, so marked in Tangier specimens, are absent, or only feebly indicated.

9. *LACERTA PERSPICILLATA*, Dum. & Bibr.; Boulenger, *loc. cit.* p. 126.

2 ♂, Santa Cruz, Oran.

In these specimens there are 56 and 60 scales across the middle

of the body, the highest number mentioned by Boulenger being 56 ; and in the smaller of the two specimens there are six upper labials before the subocular on one side and seven on the other, the usual number of these shields being five.

Genus *PSAMMODROMUS*, Fitzinger.

10. *PSAMMODROMUS ALGIRUS*, Linnæus ; Boulenger, *loc. cit.* p. 128.

1 ♀, Tlemçen, Province of Oran.

Genus *ACANTHODACTYLUS*, Wiegmann.

11. *ACANTHODACTYLUS BOSKIANUS*, Daudin ; Boulenger, *loc. cit.* p. 129.

1 ♂, Biskra ; 1 ♂ & 1 ♀, Tuggurt ; 1 ♂ & 3 ♀, Duirat, Tunisia.

The ventral plates in these specimens do not exceed 10, and the highest number of large keeled scales between the hind limbs is 11 ; but this occurs only in one specimen, all the others having 10 longitudinal rows.

Five of the seven specimens have 23 femoral pores on each side, one 19, and the other 24. The longitudinal series of scales round the middle of the body vary from 30 to 36, the lowest number occurring in a specimen from Duirat.

12. *ACANTHODACTYLUS SCUTELLATUS*, Audouin ; Boulenger, *loc. cit.* p. 130.

1 ♂ & 4 ♀, Tuggurt ; 3 ♂ & 2 ♀, Duirat, Tunisia.

These specimens are all distinguished by acute snouts, denticulated ears, and by the dorsal and ventral scales merging the one into the other, these scales conjointly varying from 60 to 70 (Mr. Boulenger gives 61–74) ; the scales referable to the ventral region vary from 12 to 14, the latter number being dependent on the degree of development of the outermost series of scales, but in Mr. Boulenger's specimens the number rose to 18. The lowest number of femoral pores, 18, occurs in a female specimen from Tuggurt, whereas the highest number 26, is found in a male from Duirat, the range of femoral pores recorded by Mr. Boulenger being from 18 to 25.

The three males from Duirat are reddish, with numerous black spots and indications of white ocelli on the sides, whereas the females from the same locality are uniformly reddish, with the white ocelli feebly visible, and the black spots only faintly traceable here and there. The Tuggurt specimens are olive-grey. In the male from this locality the black spots are more distinctly marked than in the females.

13. *ACANTHODACTYLUS PARDALIS*, Lichtenstein ; Boulenger, *loc. cit.* p. 131.

3 ♂, Aures Mountains, north of Biskra ; 7 ♂ & 8 ♀, route between Biskra and Tuggurt ; 3 ♂ & 7 ♀, Duirat, Tunisia.

The specimens from the first-mentioned locality belong to the variety named *bedriagæ* by M. Lataste, whilst the others, which are distinguished from them by being more slender and somewhat smaller, may be taken as representing the variety *deserti* (*Zootoca deserti*, Günther). However, as Mr. Boulenger points out, not only are these varieties ill-defined, but the former approaches *A. vulgaris* in its structure and coloration, whilst the latter often closely resembles *A. scutellatus*. This species (*A. pardalis*) is thus a transitional form.

Among the specimens recorded above, the scales round the middle of the body, including the ventrals, vary from 61–74, whereas in Mr. Boulenger's specimens the variation is from 66–82. The femoral pores also are variable, as in my specimens the lowest number is 15 and the highest 22, whilst the numbers recorded by him are 15–25.

14. *ACANTHODACTYLUS VULGARIS*, Dum. & Bibr.; Boulenger, *loc. cit.* p. 131.

4 ♂ & 3 ♀, Mount Santa Cruz. On old walls at the foot of the hill.

In these specimens the subocular enters the labial border, and in five out of the seven it does so more or less broadly. In one of the remaining two the sharp lower angle of the shield is wedged in between the labials as a fine point, while in the seventh specimen it is excluded from the labial border on one side, but preserves the same character as the previous specimen on the opposite side. Unlike Moroccan examples of this lizard, the tendency of this shield is to enter largely into the formation of the lip.

In none of the specimens does the number of the scales round the body, including the ventrals (8), exceed 77, nor fall lower than 73. The femoral pores vary from 23 to 26.

They are marked with six longitudinal whitish lines, separated from each other by broad dark brown bands; but in the largest specimen the white lines are more or less broken up into white spots, the intervening dark bands being reticulated with brick-red. The limbs are white spotted, and the end of the tail is pink.

Genus *EREMIAS*, Wiegmann.

15. *EREMIAS GUTTULATA*, Lichtenstein; Boulenger, *loc. cit.* p. 132.

1 ♂, between Biskra and Tuggurt; 1 ♂, Tuggurt, and 1 ♀, Duiat.

These three specimens have the median disk of the eyelid broken up into 4, 5, and 6 scales respectively, with the collar distinct only at the sides. In the variations tabulated by Mr. Boulenger, the form with the collar distinct at the sides has only two scales in the transparent palpebral disk, the highest number, four, recorded by him occurring in specimens with the collar free all round. In specimens presenting these two kinds of variation in the collar and in the

palpebral disk, the number of scales round the middle of the body is 52, the femoral pores being 10-10 in the first variation, and 11-10 in the second, whereas in my specimens the scales round the body (including the ventrals) are 52-53, and the femoral pores are 11-14. In Mr. Boulenger's specimens with six scales in the palpebral disk, and with the collar distinct and attached in the middle, the femoral pores are 14-13, while in the above-mentioned specimen, with the same number of scales in the palpebral disk, there are only 11 femoral pores, associated with 53 scales (including the ventrals) round the body, whilst his specimens have 59 scales. Mr. Boulenger indicates another variation with 3 scales in the palpebral disk, 68 scales (including ventrals) round the body, and with 17-17 femoral pores. These facts attest the correctness of M. Lataste's opinion, which Mr. Boulenger shares, that no division of this species into subspecies or varieties can be made on characters derived from the palpebral disk and collar.

Family VI. SCINCIDÆ.

Genus MABUIA, Fitzinger.

16. *MABUIA VITTATA*, Olivier ; Boulenger, *loc. cit.* p. 135.

1, Djebel Ahmer Khaddon, south of Constantine ; 1, Biskra ; 1, between Biskra and Tuggurt.

The largest specimen is from the first-mentioned locality, and measures, from the snout to the vent, 75 millim., the tail 129.

Genus EUMECES, Wiegmann.

17. *EUMECES SCHNEIDERI*, Daudin ; Boulenger, *loc. cit.* p. 136.

1 ♂ & 2 ♀, Duiat, Tunisia.

Genus SCINCUS, Laurenti.

18. *SCINCUS OFFICINALIS*, Laurenti ; Boulenger, *loc. cit.* p. 137.

1 ♂, Sand-dunes, Debila, Sahara ; 1 ♂ & 3 ♀, Tuggurt ; 1 ♂ & 3 ♀, Duiat, Tunisia.

In one of the specimens from Duiat there are 30 scales round the body, in the other 26-28. These specimens present two types of coloration, being either uniformly yellowish above or marked in addition with dark brown bars more or less continuous across the back, strongly or obscurely developed.

Genus CHALCIDES, Laurenti.

19. *CHALCIDES OCELLATUS*, Forskål ; Boulenger, *loc. cit.* p. 138.

11, Biskra ; 1, Djebel Ahmar Khaddon, south of Constantine ; 6, Duiat, Tunisia.

The largest specimen is 116 millim. from the snout to the vent, and, in one measuring 104 millim., the hind limb is 25 millim. The scales round the body vary from 28-32 in number, whereas those

described by Mr. Boulenger had never more than 30. The specimens from Duirat are all marked with white ocelli or shafts in black spots, the general colour of the upper surface varying from dark brown to dark grey, without any trace of the broad dorsal band of a darker hue which occurs in all the Biskra specimens, none of which are of a grey tint. In some specimens from Biskra the ocelli are practically absent or only obscurely indicated.

19 *a.* var. *TILIGUGU*, Gmelin.

1, Tlemçen, Province of Oran; 1, Mount Santa Cruz, Oran; 1, Hammam R'irha, Province of Algiers; 2, Hammam Meskoutine, Province of Constantine; and 3, Duirat, Tunisia.

These specimens are stouter than the previous form and larger, reaching 144 millim. from the snout to the vent. The limbs also are longer, as in one individual measuring 105 millim. from the snout to the vent the hind limb is 29 millim. The scales round the body vary from 30–32. In all of them there is a broad dorsal band with a lighter-coloured broad band on either side of it, and all are ocellated. The Duirat specimens are much paler than those from the Tell.

20. *CHALCIDES BOULENGERI*, sp. nov. (Plate I. figs. 1, 2, 3.)

2 specimens, Duirat, Tunisia.

Snout wedge-shaped, not so broad as in *C. sepioides*, Audouin, but with a projecting labial edge; eye small, but slightly larger than in *C. sepioides*; ear-opening an oblique slit at the commissure of the mouth, but with a fringe of three pointed scales. The nostril is not in advance of the suture between the rostral and the first labial; supranasals fused into a single shield; frontal as broad or a little broader than long; four supraoculars, with four small scales below them; fifth labial enters the orbit. The limbs are weak, but stronger than in *C. sepioides*; the hinder pair are proportionally more developed than the front limbs. The hind limbs are penta- or tetradactyle, and in length each equals about the distance between the fore limb and the nostril; the latter limb equals considerably more than half its distance from the centre of the eye, and is pentadactyle¹. The body is not quite so long as in *C. sepioides*, and the sides are angular as in that species. Twenty-eight rows of scales round the body.

Yellowish above, each scale finely margined with dark brown, their centres whitish and presenting, in some instances, the appearance of ocelli, recalling the ocellation characteristic of *C. ocellatus*, and this is unmistakably marked especially on the tail, on which the ocelli are arranged in more or less transverse rows. A black line through the eye, and two fine black lines on either side of the frontal. The

¹ In one specimen the *manus* is entirely absent on one side, but this is probably due to an accident.

black margins of the scales on the nape tend to form longitudinal lines.

No. 1. Snout to vent 83 millim., tail 60, hind limb 17.

No. 2. „ „ „ 83 „ „ 45¹, „ „ 17.

This species is distinguished from *C. sepoides* (Plate I. figs. 4, 5) by the nostril not being placed in advance of the suture between the first labial and the rostral; by the fifth labial entering the orbit, whereas in *C. sepoides* it is the fourth that does so; and by 28 rows of scales round the body, whilst in that species these scales never exceed 24.

The ear is much the same as in *C. sepoides*, but it is very different from the ear of *C. ocellatus* and that of *C. mionecton*, in which it is a round well-marked opening, further removed from the angle of the mouth.

It is linked by the character of its labial edge and rostral to *C. sphepsiformis* (Senegambia), which through *C. mionecton* connects it with *C. ocellatus*. It thus supplies a link that was wanting in the chain of these species, so to speak.

I have much pleasure in connecting Mr. Boulenger's name with this new lizard from Barbary.

Suborder II. RHIPTOGLOSSA.

Family I. CHAMÆLEONTIDÆ.

Genus CHAMÆLEON, Laurenti.

1. CHAMÆLEON VULGARIS, Daudin; Boulenger, *loc. cit.* p. 142.

1, Tamerna, Sahara; 3, Dairat, Tunisia.

Suborder III. OPHIDIA.

Family I. COLUBRIDÆ.

Genus ZAMENIS, Wagler.

1. ZAMENIS ALGIRUS, Jan; Boulenger, *loc. cit.* p. 147.

2 specimens, Dairat, Tunisia.

No. 1. Total length 1000 millim., tail 250. Ventrals 218, subcaudals 104.

No. 2. Total length 920 millim., tail 200. Ventrals 231, subcaudals 87.

In the first specimen there are 8 upper labials on one side and 9 on the other, but in No. 2 there are 9 upper labials on both sides. In No. 1 the fifth labial enters the orbit on the left side, but on the right side the labials are excluded from touching the eye; and in No. 2 a labial, the fifth, enters the orbit on one side only, being excluded on the other by an additional subocular, the labial entering the orbit when there are only two suboculars. The præocular in these specimens has generally two small scales below it separating it from

¹ Renewed.

the labials. The temporals also are variable, as in No. 2 they are 3+3 on one side and 2+3 on the other. The number of subcaudals in No. 1 exceeds the maximum given by Mr. Boulenger, and its anal is entire, while in No. 2 these plates fall below the minimum recorded by him. His figures are 92-100. Their coloration is normal.

2. *ZAMENIS HIPPOCREPIS*, Linnæus ; Boulenger, *op. cit.* p. 147.

1 specimen, Hammam Meskoutine, Province of Constantine ;
1 specimen, neighbourhood of Algiers.

In the first specimen there are 10 upper labials on one side, and two temporals in contact with the postoculars.

3. *ZAMENIS DIADEMA*, Schlegel ; Boulenger, *op. cit.* p. 148.

1 specimen, Duirat, Tunisia ; 1 specimen, between Biskra and Tuggurt.

The snake from Duirat has 25 rows of scales, and the Biskra-Tuggurt specimen 32. The head-shields present some of the variations usual to this species.

The Duirat specimen has the pale yellowish sandy coloration of a desert form ; the typical dark rhombic markings are distinct, but the horn-colour has a faded appearance.

Genus *TROPIDONOTUS*, Kuhl.

4. *TROPIDONOTUS VIPERINUS*, Latr. ; Boulenger, *loc. cit.* p. 149.

1 specimen, Hammam Rirha, Province of Algiers ; 1 specimen, Biskra ; 6 specimens, between Biskra and Tuggurt ; 1 specimen, Duirat, Tunisia.

The first specimen has the rare variation of 23 rows of scales.

Genus *MACROPROTODON*, Guichenot.

5. *MACROPROTODON CUCULLATUS*, Geoffroy ; Boulenger, *loc. cit.* pp. 149, 150.

1 specimen, Hammam Meskoutine, Province of Constantine, among stones.

Total length 539 millim., tail 93. Ventrals 171 ; subcaudals 54. It has 19 rows of scales, which is generally the case in Algerian and Tunisian specimens, as pointed out by Mr. Boulenger.

Genus *PSAMMOPHIS*, Boie.

6. *PSAMMOPHIS SIBILANS*, Linnæus ; Boulenger, *loc. cit.* p. 150.

1 specimen, Duirat, Tunisia.

Total length 975 millim., tail 341. Ventrals 179 ; subcaudals 131. A partially divided præocular on each side ; 9 upper labials, the 5th and 6th entering the orbit, as in the case of all Algerian and Tunisian specimens found by M. Lataste.

Genus *CÆLOPELTIS*, Wagler.7. *CÆLOPELTIS LACERTINA*, Wagler; Boulenger, *loc. cit.* p. 151.

1 specimen, Duirot, Tunisia.

Total length 1275 millim., tail 347. Ventrals 170, subcaudals 105; 19 rows of scales.

8. *CÆLOPELTIS PRODUCTA*, Gervais; Boulenger, *loc. cit.* p. 151.

2 specimens, Duirot, Tunisia.

No. 1. Total length 663 millim., tail 121. Ventrals 161, subcaudals 62.

No. 2. Total length 671 millim., tail 115. Ventrals 159, subcaudals 48.

The first has 9 upper labials on the right side, and the normal number 8 on the left, the 5th and 6th entering the right and the 4th and 5th the left orbit. The grooving of the scales of these specimens is very feebly indicated and in marked contrast to this character in *C. lacertina*.

This appears to be the second record of this snake from Tunisia, the first specimen having been obtained by M. Valéry-Mayet at Bou-Hedma near Gafsa. The species was originally based on a specimen from the Sahara.

Family II. VIPERIDÆ.

Genus *VIPERA*, Laurenti.9. *VIPERA LEBETINA*, Linnæus; Boulenger, *loc. cit.* p. 154.Var. nov. *DESERTI*. (Plate I. figs. 6 and 7).

1 ♀, Duirot, Tunisia.

I have no hesitation in referring this specimen to *V. lebetina*, but, as it is devoid of a canthus rostralis and has the scales on the head from the parietal region forwards to the rostral perfectly smooth, I regard it as a variety which I propose to call *deserti*.

All authors who have hitherto had occasion to describe *V. lebetina* from Algeria have either directly or indirectly referred to the keeled character of the head-scales. Through the kind assistance of Mr. Boulenger, who examined for me the type (No. 4017) of *V. mauritanica*, Guichenot, in the Paris Museum, I have his authority for stating that the canthus rostralis of that snake is well marked, and that the interorbital scales are feebly but distinctly keeled. It has no large supraoculars, and the rostral is a little higher than broad. It is a female with 163 ventrals and 50 caudals. Another and young specimen, No. 4016 of Guichenot's Collection, is the same as the preceding, but with the canthus rostralis less distinctly marked. It has 166 ventrals and 39 caudals.

I have examined all the specimens of *V. lebetina* in the British Museum, and I give the leading details regarding them in the following table, and for comparison I have added in the last column those yielded by this variety.

I have also given two drawings of its head (Plate I. figs. 6, 7). If these are compared with Guichenot's figure of *V. mauritanica*¹, which Mr. Boulenger informs me is a good representation of the above-mentioned specimen No. 4017, the differences between this variety and the typical form will be seen to be considerable.

To summarize the features of this variety, the most striking is certainly the entire absence of any approach to keeling on the scales on the upper surface of the head from the parietal region forward to the rostral. As already stated, in all the hitherto recorded specimens of *V. lebetina*, the scales of the head over the foregoing area and over the upper surface of the head generally are keeled in various degrees of intensity, while at the same time they preserve to a great extent the general form and character of the scales on the body. In this variety, on the other hand, the head-scales, besides being perfectly smooth in the region specified, are somewhat unlike those of the body in that they are rounded at their margins and are very flat. The entire absence of the canthus rostralis is another feature by which this variety is distinguished from the typical form, in which it is always defined although less marked in some individuals than in others.

The rostral shield is higher than broad, but in an example of this species from the Lake of Galilee it is as high as broad, a modification which connects this variety with the other specimens mentioned in the foregoing table in which the rostral is decidedly broader than high. The supraoculars in the first six specimens enumerated in the table (p. 21) are not markedly differentiated from the ordinary head-scales as regards their size: occasionally one or more scales may be larger than the others, either on both sides of the head or on one only, but in none of them are two scales so developed as in this variety. On the other hand, the specimens from Persia and Afghanistan can be distinguished at once by the presence of a large supraocular occupying nearly the entire upper border of the eye. It will be observed that, in the labials and the scales between the eyes, the variations among these specimens are very insignificant. It is worthy of attention that the four specimens from the mainland of South-western Asia present a marked increase in the number of their ventrals as compared with the typical form from Algeria and Cyprus, and that the two groups are connected with each other by var. *deserti* from Eastern Tunisia.

In *V. lebetina*, var. *deserti*, the colour is pale yellowish brown above, with very faint indications of the dorsal and lateral dark spots distinctive of Algerian and Cyprian examples of the typical form; and the under surface is pale yellow, almost immaculate anteriorly, the finely powdered aspect of the species being only feebly indicated posteriorly. The specimen from the Lake of Galilee very much resembles the var. *deserti* in colour and general appearance, but it has keeled scales on the head and a canthus rostralis.

I have selected the term *deserti* to designate this variety, because reptiles received from Duiat, the locality from which this Viper

¹ Explor. Sc. Alg., Rept. pl. iii.

was obtained, establish the fact that the Saharian fauna extends to that district, and moreover the Snake has all the features of a desert form.

The majority of the specimens of *V. lebetina* hitherto recorded have come from the Tell region of Western Algeria, but examples of this species have also been mentioned from Batna on the high plateau and likewise from Bona on the coast, in the Tell region. As our knowledge of the northern portion of the Sahara intervening between Duiat and Egypt becomes more extended, it is probable that this variety of *V. lebetina* will be found to occur throughout that district, and, possibly, in Egypt itself.

Genus CERASTES, Wagler.

10. CERASTES VIPERA, Linnæus ; Boulenger, *op. cit.* p. 155.

1 ♂ & 1 ♀, Duiat, Tunisia.

♂. Total length 252 millim., tail 32. Ventrals 107, subcaudals 32; rows of scales 23.

♀. Total length 248 millim., tail 22. Ventrals 117, subcaudals 22; rows of scales 23.

Mr. Boulenger mentions that although M. Lataste did not come across this Viper in Tunisia, several specimens from the southern part of that province are in the possession of Marquis Doria.

BATRACHIA.

Order ECAUDATA.

Family I. RANIDÆ.

Genus RANA, Linnæus.

1. RANA ESCULENTA, Linnæus ; Boulenger, *loc. cit.* p. 157.

5, Algiers ; 4, Hammam R'irha, Province of Algiers ; 3, Biskra.

These specimens belong to the var. *ridibunda*, Pallas, the most widely distributed race, and the only one found in Barbary. Mr. Boulenger has recently given ¹ the measurements of the largest of my specimens from the last two of the localities recorded above.

Family II. BUFONIDÆ.

Genus BUFO, Laurenti.

2. BUFO VIRIDIS, Laurenti ; Boulenger, *loc. cit.* p. 158.

1 young specimen, Laurier-Rose Station on the railway to Tlemçen ; 2 specimens, Duiat.

3. BUFO MAURITANICUS, Schlegel ; Boulenger, *loc. cit.* p. 158.

1 specimen, Tlemçen, Province Oran ; 2 specimens, Hammam R'irha, Province Algiers ; 2 specimens, Algiers ; 2 specimens, Biskra.

¹ Proc. Zool. Soc. 1891, p. 379.

A pair taken *in copulâ* at Biskra had the following measurements:—♂, snout to vent 124 millim.; ♀, 96.

4. *BUFO VULGARIS*, Laurenti; Boulenger, *loc. cit.* p. 159.

1 specimen, Algiers.

Family III. *HYLIDÆ*.

Genus *HYLA*, Laurenti.

5. *HYLA ARBOREA*, Linnæus; Boulenger, *loc. cit.* p. 159.

Var. *MERIDIONALIS*, Boettger.

1 ♀, Tlemçen; 1 ♂ & 1 ♀, Hammam Meskoutine, Province of Constantine.

Family IV. *DISCOGLOSSIDÆ*.

Genus *DISCOGLOSSUS*, Otth.

6. *DISCOGLOSSUS PICTUS*, Otth; Boulenger, *loc. cit.* p. 160.

2 ♂, Tlemçen, Province of Oran; 6, Hammam R'irha, Province of Algiers; 2, Algiers.

The condition of the tympanum in these specimens varies considerably, being distinct in some and wholly invisible in others. It thus supports M. Lataste's opinion, with which Mr. Boulenger agrees, that there is only one species of *Discoglossus*.

DESCRIPTION OF PLATE I.

Fig. 1. *Chalcides boulengeri*, nat. size.

Fig. 2. View of the upper surface of the head, twice nat. size.

Fig. 3. Side view of the head, twice nat. size.

Fig. 4. View of the upper surface of the head of *C. sepioides*, Audouin, twice nat. size.

Fig. 5. Side view of the head of the same species, twice nat. size.

Fig. 6. Upper surface of the head of *Vipera lebetina*, Linnæus, var. *deserti*, nat. size.

Fig. 7. Side view of the head of the same, nat. size.

2. On the Myriopoda and Arachnida collected by

Dr. Anderson in Algeria and Tunisia. By R. I. Pocock.

[Received January 11, 1892.]

The Myriopoda collected by Dr. Anderson during his stay in Algeria and Tunisia in the winter of 1890 and 1891 are referable to 21 species, one of which appears to be new. This, which I call *Brachydesmus insculptus*, seems to be very nearly related to a species that was described two years ago by Dr. Latzel from the Azores. This fact is of interest, inasmuch as it affords another link to the chain of affinity between the fauna of these islands and that of the Mediterranean district of the Palæarctic region.

The rest of the species are principally remarkable for the light